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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,951	07/14/2003	David S. Abdallah	PRIV-004/02US 307640-2030	6422
22903 7590 11/24/2009 COOLEY GODWARD KRONISH LLP ATTN: PATENT GROUP Suite 1100 777 - 6th Street, NW WASHINGTON, DC 20001				
EXAMINER JOHNS, CHRISTOPHER C				
ART UNIT 3621		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/618,951

**Applicant(s)**

ABDALLAH ET AL.

**Examiner**

Christopher C. Johns

**Art Unit**

3621

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6, 7, 21-31 and 35-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 21-31 and 35-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)  
Paper No(s)/Mail Date 7/27/09, 8/20/09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgements***

1. This Office Action is given Paper No. 20091109 for reference purposes only.
2. This Office Action is in response to the Response to Non-Final Action, filed by Applicants on 27 July 2009.
3. All references to the capitalized version of "Applicant" refer specifically to the Applicants of record in the instant application. Any references to lowercase versions of "applicant" or "applicants" refer to any or all patent applicants. Unless expressly noted otherwise, references to the capitalized version of "Examiner" refers to the Examiner of record while reference to or use of the lower case version of "examiner" or "examiners" refers to examiner(s) generally. The notations in this paragraph apply to any future Office actions from this Examiner.
4. Claims 1-4, 6, 7, 21-31, and 35-51 are pending.
5. Claims 1-4, 6, 7, 21-31, and 35-51 have been examined.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-7, 29-43, 50, and 51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Independent claim 1 recites that “the personal identification device [is] configured such that the biometric is not output from the personal identification device”. In view of the below definition of “configure”, it would be unclear to a person having ordinary skill in the art how the device could be “configured” to prevent the sending of the biometric data. Claim 6 (clause a) recites that the personal identification device does send some information, so the structure involved in preventing the biometric from being sent would be unclear to a person having ordinary skill in the art. Dependent claim 50 suffers from a similar deficiency.

9. Independent claim 29 recites “the travel permission information associated with the user based on the acknowledgement...”. It would be unclear to a person having ordinary skill in the art whether a) the “travel permission information” is based on the acknowledgement, or b) the “travel permission information” is sent because the acknowledgement is sent. The corresponding structure that would create this system would be unclear to a person having ordinary skill in the art.

10. Dependent claim 43 recites “authenticating...based on the biometric template”. A person having ordinary skill in the art would not understand whether this means a) that the step of authentication only happens based on some feature of the template; b) that authentication of the input is based on the biometric template (i.e. “is input = biometric template?”); or c) that the input itself is based on the biometric template. As a person having ordinary skill in the art would not understand the corresponding structure that would create this system, the claim is rendered indefinite.

11. Claims 2-7, 30-37, 40-42, and 51 are indefinite based on at least their dependency from one of the above claims.

12. The Examiner finds that because the claims are indefinite under 35 U.S.C. §112, 2<sup>nd</sup> paragraph, it is impossible to properly construe claim scope at this time. However, in accordance with MPEP §2173.06 and the USPTO's policy of trying to advance prosecution by providing art rejections even though claims may be indefinite, the claims are construed and the prior art is applied as much as practically possible.

*Claim Rejections - 35 USC § 103*

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-4, 6, 7, 21-31, 35-40, 42, 46, are 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,085,976 ("Sehr") in view of ID2 Technologies: New biometric smart card solution provides the most secure method of user authentication to date, a story from M2 Presswire ("ID2").

15. As per claims 1, 21, and 29, Sehr discloses:

16. institution for researching and recording identity and at least one travel privilege for individuals (figure 3, "Cardholder/Passenger Background");

17. database maintained by institution for associating identified individuals' names (figure 3, "Cardholder/Passenger Background"), assigned asymmetric key pair (figure 3, "Digital Signature"), at least one travel privilege (figure 3, "Selection Transport/Service")

18. privilege including destination restriction, date and time restriction, mode of transportation restriction (Figure 3, "Airplane Railroad Ship Other"), operator restriction, expiration date (inherent in the use of transportation tickets);
19. travel privilege certificate associated with travel privilege and identified individual (column 2, line 65, "traveler's permit");
20. personal identification device including means for authenticating at the personal identification device the identified individual based on a biometric (figure 1, reference 1, 11, 12, 13);
21. receiving a request for a travel permission information from a personal identification device associated with the user, the request including an acknowledgement of an authentication of the biometric information of the user performed at the personal identification device (column 6, lines 52-61 - "biometrics can also be compared with biometrics information...");
22. sending travel permission information associated with the user based on the authentication, the travel permission information being encrypted based on an asymmetric key pair (column 31, lines 19+ - "public key technology...can also be used to store a public key certificate in the passenger card").
23. Sehr does not explicitly disclose:
24. personal identification device configured such that the biometric is not output from the personal identification device;
25. without sending the biometric template from the personal identification device;
26. acknowledgement excluding biometric information.

27. ID2 teaches:

28. personal identification device configured such that the biometric is not output from the personal identification device (§2 - “match the fingerprint within the smart card itself”);

29. without sending the biometric template from the personal identification device (§5 - “matched against a template stored within the processor...process takes place within the card”);

30. acknowledgement excluding biometric information (§2 - “match the fingerprint within the smart card itself”).

31. ID2 teaches not sending biometrics away from the card in order to create a system that is “highly secure and tamper-resistant” (§2). This creates a more secure system that users are more likely to implement - creating a more profitable system for the system’s creators.

32. The sole difference between the reference and the instant application is that the reference does not disclose an internal comparison of biometrics in place of a remote comparison of biometrics. Since each individual comparison system and its function are shown in the prior art (though in different references), the difference between the claimed subject matter and the prior art rests not on an individual element or function, but the combination itself – that is, in the substitution of comparing biometrics locally in Sehr. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use local biometric comparison in place of remote comparison, because the simple substitution of one known element for another, producing a predictable result, renders the claim obvious. A person having ordinary skill in the art would also find it advantageous because it would create a more secure (and therefore more profitable) system.

33. As per claims 2-4, Sehr in view of ID2 discloses as above, and further discloses:
34. certificate comprising name, date, time, mode of transportation, type of privilege, issue date, expiration date fields, unique serial number, and a digital signature created by issuer of certificate (column 15, lines 15-37 - "electronic representation of tickets...seat assignments...carrier...date and time...unique ticket number...name and address...selected information about the carrier or itinerary"; column 31, lines 19+ - "public key technology...can also be used to store a public key certificate in the passenger card");
35. modes of transportation include train, bus, car, airplane, or ship (column 7, lines 45-47 - "airplanes, railroads, ships, automobiles, subways, buses, or rental cars");
36. type of privilege includes reservation ticket, boarding pass, port-of-entry permission, vehicle operator permission (column 7, lines 47-53 - "reservations...electronic ticketing...transportation support").
37. As per claims 6, 7, and 22, Sehr in view of ID2 discloses as above, and further discloses:
38. means for communicating programmed to download travel privilege certificate to said personal identification device, download a computing mechanism onto the personal identification device, download a digital certificate and asymmetric key pair for the individual into the personal identification device, and transmit at least one travel privilege certificate from said personal information device (column 6, lines 39-51 - "write information into the card"; column 19, lines 3-5 - "Read/Write means refer to the retrieving of data from or the loading of data into the passenger card"; figure 1, reference number 12);



39. means for recording at least one notable event on said personal identification device

(column 30, line 55 - "audit trail about the data and information stored in the card,

authentications and verifications...");

40. means for storing at least one travel privilege certificate on said personal information

device (Abstract, "cards so as to automatically compile...store and activate a traveler's permit for transportation and other travel service");

41. at least one application audit log on said personal identification device (column 30, line 55 - "audit trail");

42. means for receiving the biometric of the identified individual prior to the identified individual being authenticated based on the biometric and prior to transmitting the travel privilege certificate (the biometric must inherently be received by the machine before authenticating it).

43. As per claims 23-28, 30, 31, and 35-40, Sehr in view of ID2 discloses as above, and further discloses:

44. travel permission information includes at least one of a time, mode of transportation, destination, date, operator, or expiration date restriction (column 17, lines 33-42; expiration dates are inherent in the art of travel permissions and certificates);

45. enrollment station (column 4, lines 26-44 - "also be used to compile the contents of the passenger card").

46. As per claims 42, 49, and 50, Sehr in view of ID2 discloses as above, and further discloses:

47. receiving the travel permission information from a travel-governing authority associated with enrollment of the biometric information to the personal information device (column 21, lines 8-10 - “can be downloaded only from the travel map, which coordinates the seat assignments”);

48. biometric template is stored only at the personal identification device (ID2 - ¶4 - “the only way to gain full access to the card’s functions is to present the correct fingerprint”).

*Claim Rejections - 35 USC § 103*

49. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

50. Claims 41, 43-48, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sehr in view of ID2, further in view of United States Patent 5,686,765 (“Washington”).

51. As per claims 41, 43-48, and 51, Sehr in view of ID2 discloses as above, but does not explicitly disclose:

52. authenticating a second biometric input from the operator based on the biometric template stored at the personal identification device;

53. inhibiting output of the travel permission information to a kill switch coupled to the vehicle when the second biometric input of the operator is not authentic;

54. authenticating the user not before the ignition of the vehicle;
55. kill switch disables operation of the vehicle when the travel permission information is invalid.
56. Washington discloses:
57. authenticating a second biometric input from the operator based on the biometric template stored at the personal identification device (column 7, line 61 - column 8, line 2 - “driver is periodically prompted to use the physiological identification device 100 which compares the stored data with the output signal”);
58. inhibiting output of the travel permission information to a kill switch coupled to the vehicle when the second biometric input of the operator is not authentic (column 7, line 61 - column 8, line 2 - “if the two signals match, normal operation of the vehicle continues. Otherwise, the vehicle ignition is disabled in the above-identified fashion);
59. authenticating the user not before the ignition of the vehicle (column 7, lines 9-14 - “utilized to periodically check the authorization of the driver”).
60. Washington discloses reauthenticating the user at random intervals in order to ensure that “the vehicle cannot be initially started by an authorized driver and the vehicle then turned over to an unauthorized driver” (column 7, lines 9-14). This creates a more secure system where only authorized drivers may use a vehicle. This, in turn would, would create a more profitable system for its creators, because users are more likely to buy a secure system.
61. Therefore, it would have been obvious to a person having ordinary skill in the art to include in Sehr and ID2 the periodic reauthentication as taught by Washington, since the claimed invention is merely a combination of old elements, and in the combination, each element merely

would have performed the same function as it did separately. A person having ordinary skill in the art would have recognized that the results of the combination were predictable, as well as advantageous because it would create a more secure and profitable system.

62. Sehr in view of ID2, further in view of Washington, discloses as above, but does not explicitly disclose:

63. kill switch disables operation of the vehicle when the travel permission information is invalid.

64. Washington does disclose that the kill switch disables the ignition if the biometric information is invalid (column 7, line 61 - column 8, line 2), but not if travel permission information is invalid.

65. However, Sehr and ID2 use the biometric identification to output the travel permission identification. Therefore, if the biometric identification input by the user is invalid, then any data output will not be valid travel permission - as such, the system in Washington will disable the ignition upon an invalid travel permission. It is the Examiner's finding and position that absent evidence of new or unexpected results, it is not inventive in terms of patentability to take one or more device ( $S_1, S_2, S_3, \dots S_N$ ) which perform one or more tasks ( $T_1, T_2, T_3, \dots T_N$ ) and add (or subtract) an additional number of devices ( $X$ ) to perform all or part of the same tasks by allocating the tasks between the various devices (i.e.  $S_1$  and  $S_{N+1}$  perform  $T_1$ ;  $S_2$  and  $S_{N+2}$

perform  $T_2$ ,  $S_3$  and  $S_{N+3}$  perform  $T_3$ ; ... while  $S_N$  and  $S_{N+X}$  perform  $T_N$ ). The prior art is replete with examples showing why user various device configurations are desirable<sup>1</sup>.

66. In other words, a modification distributing the tasks between various clients and servers (e.g. having a single server perform the actions previously performed by multiple servers) is analogous to making functionality, structure, or actions separable - it is the Examiner's position that when the difference between the claimed invention and the prior art is that the prior art does not explicitly disclose an element as separable, then as a matter of law, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the element separable. See also *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961), and MPEP §2144.04.

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<sup>1</sup> See e.g. Watson (United States Patent 6,223,209 B1) disclosing distributed satellite world wide web servers containing identical information placed strategically throughout the Internet so as to be close to all potential clients to help reduce traffic bottlenecks; Midgely et. al. (United States Patent 5,592,611 A) disclosing additional servers as a stand-in for a failed server so that client service requests are transparent to the user; Kriegsmann (United States Patent 6,370,580 B2) disclosing multiple servers as secondary web servers to optimize file transfers; Burns et. al. (United States Patent 6,298,373 B1) disclosing cache servers which download content during off-peak hours to reduce traffic bottlenecks; Stiles (United States Patent 6,219,692 B1) which discloses sending essentially identical tasks to multiple servers with differing processing loads to find the most preferred server provider; Zdepksi et. al. (United States Patent 5,825,884) disclosing an transactional server for TV networks; Burns et. al. (United States Patent 6,298,373) disclosing how computers are used at clients to increase bandwidth by providing content in downloaded from other computers; How Networks Work (2000, ISBN: 0789724456, Derfler et al), Chapter 17 describing how server based structures benefit from economics of scale in addition to offering security, excellent data management, fast response, and room for expansion; and How the Internet Works (2006, ISBN: 0789736268, Gralla, Preston), Chapter 44 implementing a server based architecture in Internet e-commerce.

***Claim Interpretation***

67. The Examiner hereby adopts the following definitions under the broadest reasonable interpretation standard. In accordance with *In re Morris*, 127 F.3d 1048, 1056, 44 USPQ2d 1023, 1029 (Fed. Cir. 1997), the Examiner points to these other sources to support his interpretation of the claims. Additionally, these definitions are only a guide to claim terminology since claim terms must be interpreted in context of the surrounding claim language. Finally, the following list is not intended to be exhaustive in any way:

68. **Configure:** “To initialize a device so that it operates in a particular way. For instance, a customer may configure a device so the device never requests data link confirmations, using a variety of mechanisms (e.g. parameters in NVRAM, parameters in ROM, dip switches, or hardware jumpers).” The Authoritative Dictionary of IEEE Standards Terms, 7<sup>th</sup> Ed., IEEE, Inc., New York, NY, 12/2000.

69. **Configuration:** “(1) (A) The arrangement of a computer system or component as defined by the number, nature, and interconnection of its constitute parts. ... (C) The physical and logical elements of an information processing system, the manner in which they are organized and connected, or both. *Note:* May refer to a hardware configuration or software configuration.” Id.

70. **For:** “1 a -- used as a function word to indicate purpose... b -- used as a function word to indicate an intended goal”, Webster's Ninth New Collegiate Dictionary, Merriam-Webster Inc., Springfield MA, 1986.

***Response to Arguments***

71. Applicants' arguments with respect to the claims have been considered but are moot in view of the new ground of rejection. They argue limitations that were not previously in the claims – as they have been fully addressed in this Office Action, the arguments are overcome.

***Conclusion***

72. Applicant's amendment, filed on 27 July 2009, necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

73. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

74. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher C. Johns whose telephone number is (571)270-3462. The examiner can normally be reached on Monday - Friday, 9 am to 5 pm.

75. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Fischer can be reached on (571) 272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

76. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher C Johns/  
Examiner, Art Unit 3621

/ANDREW J. FISCHER/  
Supervisory Patent Examiner, Art Unit 3621